

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF MICHIGAN
SOUTHERN DIVISION

JOAO CONTROL & MONITORING
SYSTEMS, LLC,

Plaintiff,

Case No. 13-cv-13957

v.

CHRYSLER GROUP LLC,
HON. MARK A. GOLDSMITH

Defendant.

OPINION AND ORDER
CONSTRUING DISPUTED CLAIM TERMS

I. INTRODUCTION

This is a patent infringement case in which Plaintiff Joao Control & Monitoring Systems, LLC (“JCMS”) alleges that Defendant Chrysler Group LLC has infringed upon four of its patents.

Pursuant to this Court’s Scheduling Order (Dkt. 25), the parties have identified the disputed claim terms within the four patents that they feel are material to the infringement and validity issues in this case. The parties have submitted extensive written briefs explaining their positions on how the disputed claim terms should be construed (Dkts. 36, 38, 40). On March 24, 2015, the Court held oral argument.

In this opinion and order, the Court will construe the disputed claim terms identified by the parties, pursuant to Markman v. Westview Instruments, 517 U.S. 370 (1996).

II. OVERVIEW OF THE ASSERTED PATENTS

Plaintiff JCMS has asserted four patents against Defendant Chrysler Group LLC: (i) U.S. Patent No. 5,917,405 (‘405 Patent), entitled “Control Apparatus and Methods for Vehicles”; (ii)

U.S. Patent 6,549,130 ('130 Patent), entitled "Control Apparatus and Method for Vehicles and/or Premises"; (iii) U.S. Patent No. 6,542,076, entitled "Control, Monitoring and/or Security Apparatus and Method"; and (iv) U.S. Patent No. 7,397,363, entitled "Control and/or Monitoring Apparatus and Method."

The four patents are all part of the same family of patents and are thus related. The parties agree that that the written description sections of the asserted patents are largely the same for purposes of construing the disputed claim terms. The parties also agree that the Court need only refer and cite to the written description of the '405 Patent in construing the disputed claim terms where the patents contain common claim terms. See Markman Hr'g Tr. at 13 (Dkt. 49).

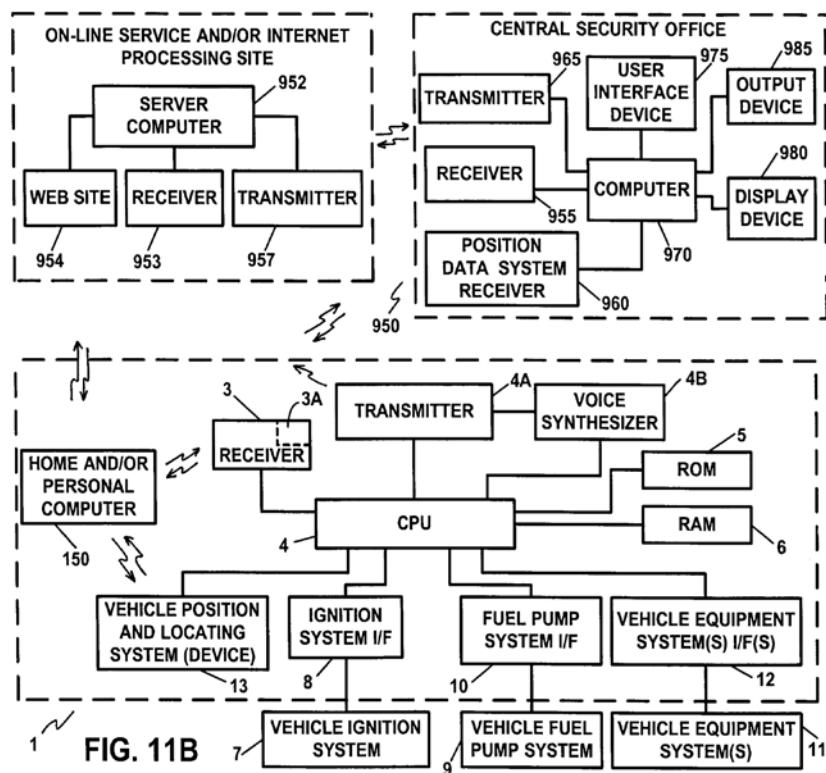
The asserted patents relate inter alia to security systems that prevent theft of a motor vehicle and facilitate recovery of the vehicle after the theft. In one example embodiment, the asserted patents teach a system that allows an owner, after theft of his vehicle, to turn off the vehicle or lock-out the thief from the vehicle by controlling vehicle systems via an online web site or a central security office. The web site or central security office would then communicate with the vehicle's onboard computer thereby allowing the vehicle's owner to control systems of the vehicle.

More specifically, the patented system allows the vehicle's owner to turn off or activate various vehicle systems to thwart theft of the vehicle, such as turning off the fuel supply system, the exhaust system, or the ignition system; locking the vehicle hood; turning on an interior or exterior siren, alarm, or horn; activating an intercom system for providing communications between vehicle owner and the vehicle occupants; and/or activating a video and/or audio recording device within the vehicle. The patented system would only allow the vehicle owner to

turn off these vehicle systems when it safe to do so, such as when the thief turns the engine off or the vehicle is stopped.

The patent also teaches that the patented system can have a vehicle position and locating device that can be utilized to allow the vehicle's owner to determine the position and/or location of the vehicle after it is stolen.

Figure 11B of the '405 Patent illustrates the patented system, which has been reproduced below. Reference number 150 shows a home and/or personal computer that communicates with an online web site 954, a central security office 950, or directly with a receiver 3 on the vehicle.



III. LAW OF CLAIM CONSTRUCTION

Claims of a patent are short and concise statements, expressed with great formality, of the metes and bounds of the patented invention. Each claim is written in the form of a single sentence. Claim construction is the manner in which courts determine the meaning of a disputed

term in a claim. “The construction of claims is simply a way of elaborating the normally terse claim language: in order to understand and explain, but not to change, the scope of the claim.”

Scripps Clinic & Research Found. v. Genentech, Inc., 927 F.2d 1565, 1580 (Fed. Cir. 1991). The construction of key terms in patent claims plays a critical role in nearly every patent infringement case. Claim construction is central to both a determination of infringement and validity of a patent. The judge, not a jury, is to determine the meaning of the disputed claim terms as a matter of law. Markman, 517 U.S. at 372, 391.

A judge has two primary goals in construing the disputed claim terms. The first goal is to determine the scope of the invention by interpreting the disputed claim terms to the extent needed to resolve the dispute between the parties. The second goal is to provide a construction that will be understood by the jury, who might otherwise misunderstand a claim term in the context of the patent specification and prosecution history of the patent. See, e.g., Power-One, Inc. v. Artesyn Techns., Inc., 599 F.3d 1343, 1348 (Fed. Cir. 2010) (“The terms, as construed by the court, must ensure that the jury fully understands the court’s claim construction rulings and what the patentee covered by the claims.”); U.S. Surgical Corp. v. Ethicon, Inc., 103 F.3d 1554, 1568 (Fed. Cir. 1997) (“Claim construction is a matter of resolution of disputed meanings and technical scope, to clarify and when necessary, to explain what the patentee covered by the claims, for use in the determination of infringement.”). The Court’s claim construction ruling forms the basis for the ultimate jury instructions, although that is not to say that the Court cannot modify its wording for the jury instructions after ruling on claim construction. See IPPV Enters., LLC v. Echostar Commc’ns Corp., 106 F. Supp. 2d 595, 601 (D. Del. 2000).

The seminal case setting forth the principles for construing disputed claim terms is Phillips v. AWH Corp., 415 F.3d 1303 (Fed. Cir. 2005) (en banc). According to Phillips, the

words of the claim are generally given their “ordinary and customary” meaning, i.e., “the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention.” Id. at 1312-1313. The person of ordinary skill in the art views the claim term in light of the entire intrinsic record, which is the entire claim, the other parts of the patent, and, if in evidence, the prosecution history of the patent before the United States Patent and Trademark Office. Id. at 1313-1314. Although a claim must be construed in view of the entire patent, the court should normally not read limitations or features of the exemplary embodiments discussed in the patent specification into the claims. Id. at 1323-1324.

The prosecution history of the patent can often inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention during the course of prosecution by his statements, making the claim scope narrower than it would otherwise be. However, because the prosecution history is an ongoing negotiation between the patent office and the patent owner, rather than the final product of that negotiation, it often lacks the clarity of the patent itself and is generally less useful for claim construction purposes. Id. at 1317.

In discerning the meaning of claim terms, resorting to dictionaries and treatises also may be helpful. Id. at 1320-1323. However, undue reliance on extrinsic evidence poses the risk that it will be used to change the meaning of claims in derogation of the indisputable public records consisting of the claims, the specification of the patent and the prosecution history, thereby undermining the public notice function of patents. Id. In the end, the construction that stays true to the claim language and most naturally aligns with the patent’s description of the invention will be the correct construction. Id. at 1316.

It is proper for the Court to construe the disputed claim terms in the context of the infringement or invalidity dispute by viewing the accused device or prior art. Viewing the accused device or prior art allows the Court to construe the claims in the context of the dispute between the parties, not in the abstract. “While a trial court should certainly not prejudge the ultimate infringement analysis by construing claims with an aim to include or exclude an accused product or process, knowledge of that product or process provides meaningful context for the first step of the infringement analysis, claim construction.” Wilson Sporting Goods Co. v. Hillerich & Bradsby Co., 442 F.3d 1322, 1326-1327 (Fed. Cir. 2006). The Federal Circuit has held that without “the vital contextual knowledge of the accused products,” a court’s claim construction decision “takes on the attributes of something akin to an advisory opinion.” Lava Trading, Inc. v. Sonic Trading Mgmt, LLC, 445 F.3d 1348, 1350 (Fed. Cir. 2006).

IV. CLAIM CONSTRUCTION ANALYSIS FOR DISPUTED CLAIM TERMS

The parties have requested that the Court construe a number of claim terms. The Court will address each disputed claim term in the following sections.

A. “Control Device”

| Disputed Term | Plaintiff’s Proposed Construction | Defendant’s Proposed Construction | Court’s Construction |
|----------------------|--|--|--|
| “control device” | A device or a computer, or that part of a device or computer, which performs an operation, an action, or a function, or which performs a number of operations, actions, or functions | A device that directs the activity of another device | A device that directs the activity of another device |

The parties request that the Court construe the term “control device” in Claims 15, 17, and 20 in the ‘405 Patent; Claims 64, 85, 92, and 144 in the ‘130 Patent; and Claims 13, 17, 18, 28, 65, and 68 in the ‘076 Patent.

Claim 1 of the ‘405 Patent is reproduced below to illustrate the use of “control device”:

1. A control apparatus for a vehicle, which comprises:

a first control device, wherein said first control device one of generates and transmits a first signal for one of activating, deactivating, enabling, and disabling, one of a vehicle component, a vehicle device, a vehicle system, and a vehicle subsystem, wherein said first control device is located at the vehicle;

wherein said first control device is responsive to a second signal, wherein the second signal is one of generated by and transmitted from a second control device, wherein the second control device is located at a location which is remote from the vehicle, and further wherein the second control device is responsive to a third signal, wherein the third signal is one of generated by and transmitted from a third control device, therein the third control device is located at a location which is remote from the vehicle and remote from the second control device. (Emphasis added).

Plaintiff argues that “control device” should be construed to mean “a device or computer, or that part of a device or a computer, which performs an operation, or a function, or which performs a number of operations, actions, or functions.”

Defendant argues that “control device” should be construed to mean “a device that directs the activity of another device.”

The Court agrees with Defendant and construes “control device” to mean “a device that directs the activity of another device.” This construction most naturally aligns with the intrinsic evidence of claim language and written description of the patent.

Starting with the claim language itself, the Court notes that “control device” uses the adjective “control” to modify “device.” Thus, the claim language means that a device that controls or directs the activity of another device.

The Court’s construction is supported by how the claim term “control device” is used in the context of the claims. The claim language itself clearly states that the first, second, and third control devices generate and transmit signals for directly or indirectly controlling a vehicle component or system. In the typical embodiment, when the vehicle is stolen, the vehicle’s owner through his personal computer (i.e., the third control device) accesses and sends commands to a remote web site or central security office (i.e., the second control device) in order to control vehicle functions. The web site or central security office system then sends commands to the vehicle’s computer (i.e., the first control device), which in turn sends commands to the vehicle systems, such as the ignition system or fuel system, to disable the vehicle. This claim language makes clear that the “control device” sends control commands or directs the activities of another device.

The Courts finds that Plaintiff’s proposed construction for “control device” is too broad. Plaintiff argues that “control device” should be construed to mean “a device or computer, or that part of a device or a computer, which performs an operation, or a function, or which performs a number of operations, actions, or functions.” Plaintiff’s proposed construction would encompass any device that performs a function.

Plaintiff argues that, by implication, Claim 2 supports its proposed construction for “control device.” Claim 2 states:

2. The apparatus of claim 1, which further comprises:

a monitoring device for monitoring at least one of the vehicle, vehicle operational status, vehicle operation, said one of a vehicle

component, a vehicle device, a vehicle system, and a vehicle subsystem, a vehicle one of fuel supply, water supply, and coolant supply, one of electrical generator and alternator operation, battery charge level, engine temperature level, one of an electrical circuit and an electrical device, activity inside the vehicle, and activity outside the vehicle.

Plaintiff argues that Claim 2 states that the control device also monitors and, therefore, is simply performing a function, not directing the activity of another device. The Court finds that Plaintiff's argument is misplaced. Claim 2 does not further define "control device," but rather introduces a new device into the system, a "monitoring device." According to the claim language, the monitoring device is a separate device.

Plaintiff also argues that the Court should adopt its definition of "control device," because the Plaintiff explicitly submitted its definition in the prosecution history of different, although related, patent applications. Specifically, Plaintiff submitted its explicit definition in 2006 and 2007 in the prosecution histories of different patent applications. The Court does not find Plaintiff's arguments persuasive in this case. While statements made in related patent applications can be used in construction of claim terms, a court must be careful to consider whether or not the patent owner is trying to broaden or even redefine the construction of the claim term after the issuance of the patent. The '405 Patent issued in 1999, and the '130 and '076 Patents issued in 2003. Plaintiff did not submit its proposed definition of "control device" until after the issuance of the '405, '130, and '076 Patents, specifically in 2006 and 2007 in the prosecution histories of different, though related, patent applications. Therefore, The United States Patent and Trademark Office did not have the benefit of Plaintiff's definitions before it granted the '405, '130, and 076 Patents.

Broadening of a patent is to take place through a reissue patent application which is to be filed within two years after the issuance of the patent. 35 U.S.C. § 251; See ArcelorMittal

France v. AK Steel Corp., 786 F.3d 885 (Fed. Cir. 2015) (holding that a claim that is broadened through claim construction after the two year period to file a broadening reissue application is invalid). The Court of Appeals for the Federal Circuit has repeatedly instructed that it is important to remember that there is a “public notice” function in patent law. Allowing a patent owner to broaden claim language years after the issuance of the patent would be contrary to the public notice principle in patent law and allow a patent owner to broaden the meaning of claim terms without filing a reissue patent application within two years of the issuance of the patent contrary to the statutory scheme.

In this case, the Court finds that the definitions submitted in the related patent applications years after issuance of the ‘405, ‘130, and ‘076 patents would broaden the claims and, therefore, be improper.

B. “Processing Device”

| Disputed Term | Plaintiff’s Proposed Construction | Defendant’s Proposed Construction | Court’s Construction |
|----------------------|--|--|--|
| processing device | “A device or a computer, or that part of a device or a computer, which performs an operation, an action, or a function, or which performs a number of operations, actions or functions.” | Plain and ordinary meaning applies. OR “a device that performs operations on data” | “A device or a computer, or that part of a device or a computer, which performs an operation, an action, or a function, or which performs a number of operations, actions or functions.” |

The parties request that the Court construe the claim language “processing device” in Claims 21, 22, 24, 25, 33, and 36 of the ‘363 Patent.

The parties agree that the term “processing device” in the ‘363 Patent is the same element as “control device” in the ‘405, 076, and ‘130 Patents and does the same thing in the invention.

In the ‘363 Patent, the patent owner chose to use a different term “processing device,” instead of “control device,” to describe the element of the invention. Markman Hr’g Tr. at 50, 53.

Claim 21 of the ‘363 Patent is reproduced below with examples of the disputed claim terms underlined:

21. An apparatus, comprising:

a first processing device, wherein the first processing device at least one of generates a first signal and transmits a first signal for at least one of activating, de-activating, disabling, re-enabling, and controlling an operation of, at least one of a vehicle system, a vehicle equipment system, a vehicle component, a vehicle device, a vehicle equipment, and a vehicle appliance, of or located at a vehicle, wherein the first processing device is associated with a web site, and further wherein the first processing device is located at a location remote from the vehicle,

wherein the first processing device at least one of generates the first signal and transmits the first signal in response to a second signal, wherein the second signal is a at least one of generated by a second processing device and transmitted from a second processing device, wherein the second processing device is located at a location which is remote from the first processing device and remote from the vehicle, wherein the first processing device determines whether an action or an operation associated with information contained in the second signal, to at least one of activate, de-activate, disable re-enable, and control an operation of, the at least one of a vehicle system, a vehicle equipment system, a vehicle component, a vehicle device, a vehicle equipment, and a vehicle appliance, is an authorized or an allowed action or an authorized or an allowed operation, and further wherein the first processing device at least one of generates the first signal and transmits the first signal to a third processing device if the action or the operation is determined to be an authorized or an allowed action or an authorized or an allowed operation, wherein the third processing device is located at the vehicle,

wherein the second signal is transmitted to the first processing device via, on, or over, at least one of the Internet and the World Wide Web, and further wherein the second signal is automatically received by the first processing device, wherein the first signal is transmitted to and automatically received by the third processing device, wherein the third processing device at least one of

generates a third signal and transmits a third signal for at least one of activating, de-activating, disabling, re-enabling, and controlling an operation of, the at least one of a vehicle system, a vehicle equipment system, a vehicle component, a vehicle device, a vehicle equipment, and a vehicle appliance, in response to the first signal. (Emphasis added.)

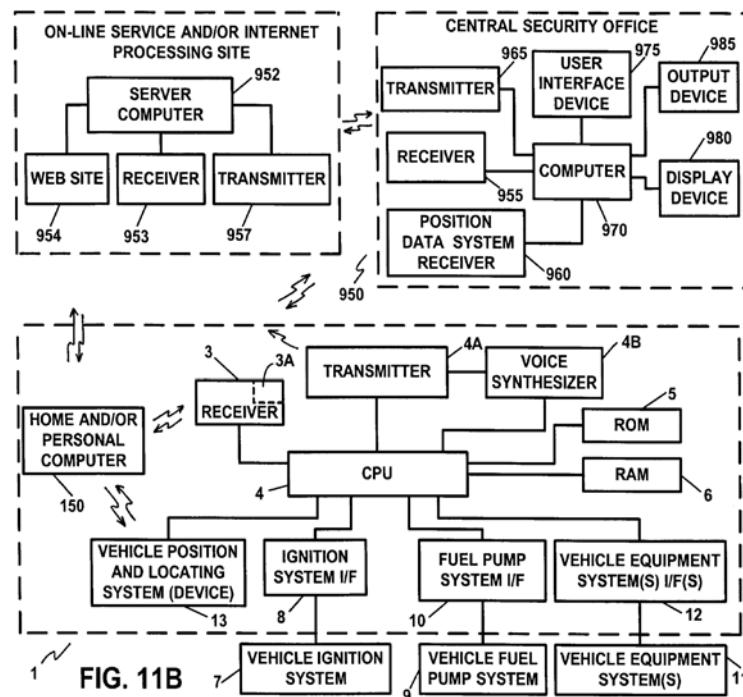
Plaintiff argues that the claim term “processing device” should be construed to mean “a device or a computer, or that part of a device or a computer, which performs an operation, an action, or a function, or which performs a number of operations, actions or functions.”

Defendant argues that this claim term does not need to be construed because a jury would understand the term or, in the alternative, Defendant argues that “processing device” should be construed to mean “a device that performs operations on data.”

During prosecution of the ‘363 Patent, before the United States Patent and Trademark Office took any action on the patent application that resulted in the ‘363 Patent, the patent owner submitted an explicit definition to the United States Patent and Trademark Office for the term “processing device.” Specifically, the patent owner submitted the exact definition it is proposing now. See 11/23/2007 Supp. to the Remarks for the Am. Filed on October 24, 2007, Ex. A to Pl.’s Markman Br. (Dkt. 36-2).

The Court finds that the term “processing device” should be construed to be consistent with the definition set forth in the prosecution history of the ‘363 Patent. By submitting the definition early in the prosecution history of the ‘363 Patent, the patent owner acted as his own “lexicographer.” CCS Fitness, Inc. v. Brunswick Corp., 288 F.3d 1359, 1366 (Fed. Cir. 2002) (holding that to be a lexicographer a patentee must “clearly set forth a definition of the disputed claim term” other than its plain and ordinary meaning). The Court also finds that this construction is consistent with the written description section of the patent because embodiments disclosed in the written description section of the patent are computers. For example, the

embodiment of Figure 11B, reproduced below, shows computers at reference numbers 150, 952, 970, and 4. Moreover, the Court finds that Plaintiff's definition may be more understandable for a jury than Defendant's alternative construction because it explicitly makes clear that a "processing device" may be a computer.¹



C. "Remote"

| Disputed Term | Plaintiff's Proposed Construction | Defendant's Proposed Construction | Court's Construction |
|---------------|-----------------------------------|---|--|
| "remote" | "separate and apart from" | No construction necessary. Plain meaning applies. Alternatively: | No construction necessary at this time. If this term needs construction, the Court will construe |

¹ In their briefs, the parties did not explain why this claim term needs to be construed in light of the infringement or invalidity issues in the case. The Federal Circuit has cautioned that, without "the vital contextual knowledge of the accused products" or invalidity issues in the case, a court's claim construction decision "takes on the attributes of something akin to an advisory opinion." Lava Trading, Inc., 445 F.3d at 1350. Accordingly, the Court reserves the right to modify its construction.

| | | | |
|--|--|--------------------|---|
| | | “distant in space” | the term at summary judgment or before trial. |
|--|--|--------------------|---|

The parties request that the Court construe the term “remote” in Claims 15, 17, and 20 of the ‘405 Patent; Claims 64, 85, 92, and 144 of the ‘130 Patent; Claims 13, 17, 18, 28, 65, and 68 of the ‘076 Patent; and Claims 21, 22, 24, 25, 33, and 36 of the ‘363 Patent.

Plaintiff argues that the Court should construe “remote” to mean “separate and apart from.”

Defendant on the other hand argues that the term “remote” is clear and does not need to be construed. Alternatively, Defendant argues that “remote” should be construed to mean “distant in space.”

The parties point to Claim 12 of the ‘405 Patent as an example of a claim using the term “remote”. Claim 12 states:

12. A control apparatus for a vehicle, which comprises:

a first control device, wherein said first control device one of generates and transmits a first signal for one of activating, deactivating, enabling, and disabling, one of a vehicle component, a vehicle device, a vehicle system, and a vehicle subsystem, [w]herein said first control device is located at a location remote from the vehicle;

wherein said first control device is responsive to a second signal, wherein the second signal is one of generated by and transmitted from a second control device, wherein the second control device is located at a location which is remote from said first control device and remote from the vehicle,

wherein said first signal controls a third control device, wherein the third control device is located at the vehicle, and further wherein the third control device one of generates and transmits a third signal for one of activating, deactivating, enabling, and disabling, said one of a vehicle component, a vehicle device, a vehicle system, and a vehicle subsystem, in response to said first signal. (Emphasis added).

The Court finds that the term “remote” is clear and does not need to be construed at this time, because the claim term is clear when read in the context of the claim and the patent. The claim states that a second control device (e.g., a person using his personal computer or telephone) sends a command to a first control device (e.g., a web site or central security location) to control a vehicle system. The claim states that the first control device and second control device are “remote” from each other and the vehicle. The second control device then sends a command signal to a third control device (e.g., the vehicle’s on-board computer), which is located at the vehicle. The third control device then sends a command signal to one or more vehicle components or systems such as to turn-off the vehicle’s fuel supply or ignition system if the vehicle is stolen. The claim states that while the first and second control devices are “remote”, the third control device is located at the vehicle. Thus, in the context of the claim language and in context of the patent in general, the term “remote” means remote from the vehicle as opposed to being located at the vehicle.

The Court’s understanding is supported by the written description sections of the asserted patents. The written description section of the patent supports the notion that term “remote” means remote from the vehicle. For example, the following two sections of the written description support the Court’s understanding that “remote” simply means the first and second control devices are remote from the location of the vehicle, as opposed to being located at the vehicle.

“The present invention enables an owner . . . to exercise and/or perform convenient control, monitoring and/or security functions . . . over . . . vehicles . . . from a remote location. For example, an individual may conveniently provide control over and monitor, the state and/or status of a vehicle parked at a location distant from his present location.” ‘405 Pat. col. 74 ll. 33-44 (emphasis added).

“The transmitter system 2 is a remote system, which is not physically connected to the remainder of the apparatus 1. Further, the transmitter system 2, in the preferred embodiment, is not located in the motor vehicle, but rather, is located external from, and separate and apart from, the motor vehicle. In the preferred embodiment, the transmitter system 2 or transceiver, is designed to be capable of transmitting signals over long distances, i.e. tens, hundreds, and/or thousands of miles or farther.” ‘405 Pat. col. 18 ll. 58-66 (emphasis added).

Defendant states that the ultimate issue in the case is whether a device located in the vehicle (e.g., a cell-phone) is “remote” from the vehicle. Based on the claim language and the portions of the written description, “remote” from the vehicle would not encompass within the vehicle or at the vehicle. However, the Court will address this particular claim construction issue further at the summary judgment stage of this case or at trial, in the context of any infringement or invalidity issues.

D. “Located At”

| Disputed Term | Plaintiff’s Proposed Construction | Defendant’s Proposed Construction | Court’s Construction |
|----------------------|---|---|-----------------------------|
| “located at” | “situated at, or situated in, or situated on” | No construction needed. Plain and ordinary meaning. Alternatively: “situated at.” | No construction needed. |

The parties request that the Court construe the term “located in” in Claims 15, 17, 20 of the ‘405 Patent; Claims 13, 17, 18, 28, 65, and 68 of the ‘076 Patent; and Claims 21, 22, 24, 25, 33, and 36 of the ‘363 Patent.

In the claims, the term “located at” is used simply to describe the location of the control devices in relation to the vehicle and other control devices. For example, in the typical

embodiment discussed in the patent, when the vehicle is stolen, the vehicle owner uses his personal computer (i.e., the second control device), which the claim states is “located at a location remote from the vehicle. . . .” As an example of the disputed claim language, Claim 12 is reproduced below with the disputed claim term underlined:

12. A control apparatus for a vehicle, which comprises:

a first control device, wherein said first control device one of generates and transmits a first signal for one of activating, deactivating, enabling, and disabling, one of a vehicle component, a vehicle device, a vehicle system, and a vehicle subsystem, [w]herein said first control device is located at a location remote from the vehicle;

wherein said first control device is responsive to a second signal, wherein the second signal is one of generated by and transmitted from a second control device, wherein the second control device is located at a location which is remote from said first control device and remote from the vehicle,

wherein said first signal controls a third control device, wherein the third control device is located at the vehicle, and further wherein the third control device one of generates and transmits a third signal for one of activating, deactivating, enabling, and disabling, said one of a vehicle component, a vehicle device, a vehicle system, and a vehicle subsystem, in response to said first signal. (Emphasis added).

Plaintiff argues that the Court should construe “located at” to mean “situated at, situated in, or situated on”.

Defendant, on the other hand, argues that the term “located at” is clear and does not need to be construed. Alternatively, Defendant argues that “located at” should be construed to mean “situated at.”

The Court finds that the term “located at” is clear and does not need to be construed at this time, especially when the claim is read in the context of the claim and the written description of the patent. The parties have not explained why a particular nuanced construction is relevant to

a disputed issue of infringement or invalidity. The Court will further construe this claim at summary judgment or trial, if necessary. Wilson Sporting Goods Co., 442 F.3d at 1326-1327 (holding that it is proper to construe disputed claim language in the context of the infringement or validity issues in the case).

E. “Signal” and “Signal For”

| Disputed Term | Plaintiff’s Proposed Construction | Defendant’s Proposed Construction | Court’s Construction |
|---------------|--|--|---|
| “Signal” | Plain and ordinary meaning understood by a person of ordinary skill in the art, and further in view of the definition for “signal” below. “Signal” means “an indication or an indication having or conveying data, information, or a message, or a conveyer of data, information, or a message, or an indication representing data or information.” | No construction necessary. Plain and ordinary meaning applies. Alternatively: “the physical embodiment of a message.” | No construction needed at this time. |
| “Signal for” | Plain and ordinary meaning understood by a person of ordinary skill in the art, and further in view of the definition for “signal” above. | “Signal for the purpose of” | No construction necessary at this time. |

In their briefs, the parties request that the Court construe the term “signal” and “signal for” in Claims 15, 17, 20 of the ‘405 Patent; Claims 64, 85, 92, and 144 of the ‘130 Patent; Claims 13, 17, 18, 28, 65, and 68 of the ‘076 Patent; Claims 21, 22, 24, 25, 33, and 36 of the ‘363 Patent.

In the claims, the term “signal” is used to describe the electro-magnetic message that is sent from one control device to another control device or vehicle component. The term “signal for” is used in the claims to give the instruction contained in the electronic message or the

purpose of the signal. For example, when the vehicle is stolen, the vehicle owner uses his personal computer or telephone (i.e., a control device) to generate and transmit a “signal” or electronic communication to a web site or central security office that contains an instruction to deactivate the vehicle’s ignition system or fuel system. The web site or central security office then sends an electronic communication to vehicle’s on-board computer, instructing the vehicle to activate or deactivate a vehicle system, such as the ignition system or fuel system.

As an example of the disputed claim language, Claim 12 of the ‘405 Patent is reproduced below with the disputed claim term underlined:

12. A control apparatus for a vehicle, which comprises:

a first control device, wherein said first control device one of generates and transmits a first signal for one of activating, deactivating, enabling, and disabling, one of a vehicle component, a vehicle device, a vehicle system, and a vehicle subsystem, [w]herein said first control device is located at a location remote from the vehicle;

wherein said first control device is responsive to a second signal, wherein the second signal is one of generated by and transmitted from a second control device, wherein the second control device is located at a location which is remote from said first control device and remote from the vehicle,

wherein said first signal controls a third control device, wherein the third control device is located at the vehicle, and further wherein the third control device one of generates and transmits a third signal for one of activating, deactivating, enabling, and disabling, said one of a vehicle component, a vehicle device, a vehicle system, and a vehicle subsystem, in response to said first signal. (Emphasis added).

Plaintiff argues that the Court should construe the terms “signal” and “signal for” as having their plain and ordinary meanings to a person of ordinary skill in the art. Plaintiff does, however, propose a definition of the word “signal.” Plaintiff defines “signal” as “an indication

or an indication having or conveying data, information, or a message, or a conveyer of data, information, or a message, or an indication representing data or information.”

Defendant on the other hand argues that the terms “signal” and “signal for” are clear and do not need to be construed. Alternatively, Defendant argues that “signal” should be construed to mean “the physical embodiment of a message,” and that “signal for” should be construed to mean “signal for the purpose of.”

At oral argument, the parties agreed that the term “signal” may not be an issue in the trial. See Markman Hr’g Tr. at 61 (“There’s no dispute that I can see in invalidity or none it would be viewed so we think signal should just be construed as signal.”).

After considering the claim term and the claims as a whole, the Court finds that the terms “signal” and “signal for” do not need to be construed, at least at this time. The Court believes that jurors will understand the terms. The Court does, however, find that Plaintiff’s proposed definition of “signal” is consistent with the normal understanding of the term. At trial, the Court may use Plaintiff’s proposed definition of “signal” depending on the particular infringement and invalidity issues presented to the jury.

The Court does find that Plaintiff’s proposal of giving these claim terms the meaning understood by a person of ordinary skill in the art to be confusing and not helpful to a jury. One of the purposes of claim construction is to make claim terms that are written for persons of ordinary skill in the particular technology area (e.g., engineers) understandable for a jury. By stating that the disputed claim terms should have their plain and ordinary meaning “to a person of ordinary skill in the art,” Plaintiff is not actually proposing a construction for the jury, because the jury is not a person of ordinary skill in art. Such a proposed claim construction is not helpful for the jury. See, e.g., Power-One, Inc. v. Artesyn Techns., Inc., 599 F.3d 1343, 1348 (Fed. Cir.

2010) (“The terms, as construed by the court, must ensure that the jury fully understands the court’s claim construction rulings and what the patentee covered by the claims.”).

The Court finds that Defendant’s proposed alternative of “signal” could be confusing to a jury. Defendant proposes the construction “the physical embodiment of a message.” The Court finds that this construction could be confusing for the jury because the term “signal” can be electric or electromagnetic in nature. See, e.g., ‘405 pat. col. 3 ll. 13-17. Laypeople may not understand an electronic or electromagnetic message to be “physical” in nature.

The Court finds that Defendant’s proposed construction for “signal for” to be consistent with how the term is used in the claim. However, the Court does not believe a construction is needed because a jury will understand what the term “signal for” means when reading the entirety of the claim.

F. “First Signal,” “Second Signal,” and “Third Signal”

| Disputed Terms | Plaintiff’s Proposed Construction | Defendant’s Proposed Construction | Court’s Construction |
|---|--|--|--|
| “first signal,” “second signal,” and “third signal” | The “first signal,” “second signal,” and “third signal” are each different signals with content that is not identical to the content of the other signals. | No construction necessary. Plain and ordinary meaning applies. Alternatively: First signal: “a signal sent by a first device.” Second signal: “a signal sent by a second device.” Third signal: “a signal sent by a third device.” | No construction necessary. Plain and ordinary meaning applies. |

Plaintiff requests that the Court construe the terms “first signal,” “second signal,” and “third signal” in Claims 15, 17, 20 of the ‘405 Patent; Claims 64, 85, 92, and 144 of the ‘130 Patent; Claims 13, 17, 18, 28, 65, and 68 of the ‘076 Patent; and Claims 21, 22, 24, 25, 33, and 36 of the ‘363 Patent.

As an example of the disputed claim language, Claim 12 of the ‘405 Patent is reproduced below with the disputed claim term underlined:

12. A control apparatus for a vehicle, which comprises:

a first control device, wherein said first control device one of generates and transmits a first signal for one of activating, deactivating, enabling, and disabling, one of a vehicle component, a vehicle device, a vehicle system, and a vehicle subsystem, [w]herein said first control device is located at a location remote from the vehicle;

wherein said first control device is responsive to a second signal, wherein the second signal is one of generated by and transmitted from a second control device, wherein the second control device is located at a location which is remote from said first control device and remote from the vehicle,

wherein said first signal controls a third control device, wherein the third control device is located at the vehicle, and further wherein the third control device one of generates and transmits a third signal for one of activating, deactivating, enabling, and disabling, said one of a vehicle component, a vehicle device, a vehicle system, and a vehicle subsystem, in response to said first signal. (Emphasis added).

Plaintiff argues that the Court should construe the terms “first signal,” “second signal,” and “third signal” as being different signals with content that is not identical to the content of the other signals.

Defendant on the other hand argues that the terms “first signal,” “second signal,” and “third signal” are clear and do not need to be construed. Alternatively, Defendant argues that “first signal” should be construed to mean “a signal sent by a first device;” “second signal”

should be construed to mean “a signal sent by a second device;” and “third signal” should be construed to mean “a signal sent by a third device.”

The issue for the Court is whether the claim terms “first signal,” “second signal,” and “third signal” should be construed to mean different signals with content that is not identical to the content of the other signals. Plaintiff also argues that the claims should be construed to not include “relay” devices, which the Court understands merely regenerate and forward the same electronic signal, although Plaintiff did not extensively explain relay devices and how they operate. In other words, Plaintiff argues that the claims should be construed to mean that when one control device receives a signal from the first control device and then sends a signal to another control device, the control device receiving and sending the message must send a different signal with a non-identical message.

After considering the claim term and the claims as a whole, the Court finds that the terms “first signal,” “second signal,” and “third signal” do not need to be construed, at least at this time, because the claim language is clear. The Court believes that jurors will understand the terms in the context of the claim language and the entire claim. The Court does, however, find that Defendant’s proposed alternative constructions are consistent with the normal understanding of the claim terms. In fact, the parties agree that the “first signal” is a signal sent by the first device, the “second signal” is sent by the second device, and the “third signal” is sent by the third device. Koperda Dep. at 139, 141-143, Ex. O to Def’s Markman Br. (Dkt. 38-19).

As to the issue of whether the “first signal,” “second signal,” and “third signal” need to be different signals with content that is not identical, the Court does not believe that Plaintiff’s proposed narrow construction is proper. According to Federal Circuit case law, a court must give a claim term its ordinary and customary meaning from the perspective of a person of

ordinary skill in the art, unless the patent owner gave the claim term a special definition in the written description section of the patent or the prosecution history, or unless the patent owner made a clear disclaimer of broader claim scope in the written description or prosecution history of the patent. See, e.g., CCS Fitness, Inc., 288 F.3d at 1366; Scimed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc., 242 F.3d 1337, 1339, 1342-1343 (Fed. Cir. 2001).

Starting with the claim language, the Court finds that the claim language is clear in that the first signal, second signal, and third signal are signals generated by different control devices. The claim language does not say that the content of the signals is not identical to each other as Plaintiff proposes.

Moving on to the written description, the written description does not state that the signals generated by the control devices must have non-identical content. Nor does the written description disclaim or distinguish the patented invention from relay devices. In fact, the written description section of the patent does not discuss relay devices. If Plaintiff's construction was correct, one would expect a lot of discussion that the control device could not be a relay device and that the signals from the control devices could not have identical content, yet there is no such discussion. For example, at column 20 lines 43-49, the '405 Patent simply states in the preferred embodiment that the signal generated is indicative of the signal received and does not say that every embodiment must produce a non-identical signal.

In the preferred embodiment, upon receiving the signal, the receiver 3, generates a distinct signal which may be a digital, an electrical, an electronic and/or an electromagnetic or other suitable signal, which signal is indicative of the signal transmitted from the transmitter 2B of the transmitter system 2 and received by the receiver 3. (Emphasis added).

Turning to the prosecution history, Plaintiff has not identified statements in the prosecution history that define or clearly limit the natural scope of the claim language. It appears

that Plaintiff is requesting the Court redraft the claim language or otherwise define the claim language so as to preserve the validity of the claims or otherwise defeat an invalidity argument that Plaintiff anticipates that Defendant will make in the future. The parties have alluded to such at oral argument. See, e.g., Markman Hr'g Tr. at 65 (“[I]f they’re a pioneering patent, they are they trying to narrow it. We found a lot of prior art. This is their way around the prior art[.]”) However, the Federal Circuit has admonished district courts from rewriting claims to preserve their validity. Rhine v. Casio, Inc., 183 F.3d 1342, 1345 (Fed. Cir. 1999) (holding that the Federal Circuit has “admonished against judicial rewriting of claims to preserve validity”).

Accordingly, the Court will not rewrite or redefine claim terms which are otherwise clear to preserve the validity of the claims or defeat an anticipated invalidity argument.

G. “An Interface Device”

| Disputed Term | Plaintiff’s Proposed Construction | Defendant’s Proposed Construction | Court’s Construction |
|-----------------------|--|---|--|
| “an interface device” | “The junction or point of interconnection between two systems or devices.” | “A device that allows the first control device and the at least one of a vehicle system, a vehicle component, a vehicle device, a vehicle equipment, a vehicle equipment system, and a vehicle appliance to work together.” | “A device that allows two things work together or communicate.” This claim construction is limited to Claim 18. |

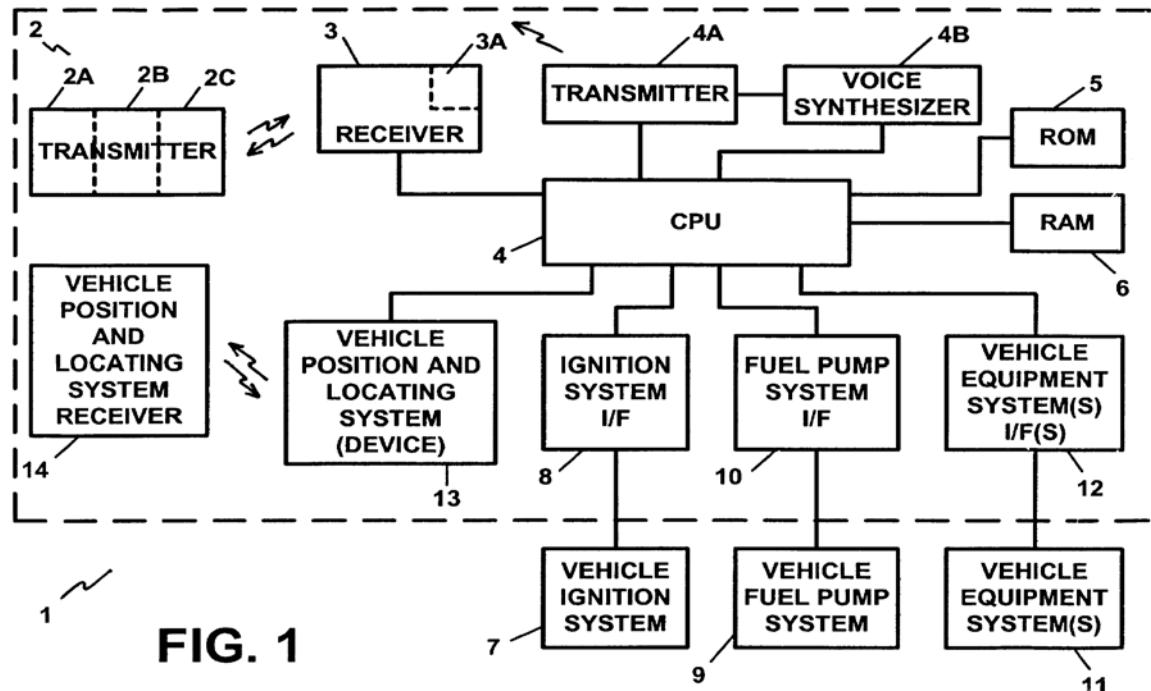
The parties request that the Court construe the term “an interface device” in Claim 18 in the ‘076 Patent.

Claim 18 of the ‘076 Patent is reproduced below with the disputed claim term underlined:

18. The apparatus of claim 3, further comprising: an interface device, wherein the interface device provides an interface between the first control device and the at least one of a vehicle system, a vehicle component, a vehicle device, a vehicle equipment, a vehicle equipment system, and a vehicle appliance. (Emphasis added.)

In the typical embodiment of Claim 18, when a vehicle is stolen, a vehicle's owner using his personal computer or telephone, through a web site or central security office, instructs the vehicle's on-board computer (i.e., first control device) to turn-off the ignition system, fuel system, or other system so as to disable the vehicle. The vehicle's on-board computer system then sends an instruction to an interface device, which then communicates directly with the vehicle system such as the ignition system, fuel system, or other system. For example, Claim 18 states that “the interface device provides an interface between the first control device and the at least one of a vehicle system[.]”

Figure 1 of the '076 patent, reproduced below, illustrates the ignition interface device 8, the fuel pump system interface device 10, and vehicle equipment systems interface devices 12, which communicate with the vehicle ignition system 7, vehicle fuel pump system 9, and vehicle equipment systems 11.



Plaintiff argues that the Court should construe “an interface device” to mean “the junction or point of interconnection between two systems or devices.”

Defendant, on the other hand, argues that the term “an interface device” should be construed to mean “a device that allows the first control device and the at least one of a vehicle system, a vehicle component, a vehicle device, a vehicle equipment, a vehicle equipment system, and a vehicle appliance to work together.”

At oral argument, Plaintiff appears to admit that this claim term is not material for this case and/or Claim 18, but rather other non-asserted claims that pertain to, for example, buildings or premises. Markman Hr'g Tr. at 68 (“[A]lthough it may work within the context of certain claims, it doesn't work within the context of other unasserted claims. We look at, for example, this construction proposed by Chrysler can't be put into the premises claims or things of that nature[.]”). It appears to the Court that Plaintiff is worried about the effects of collateral estoppel on un-asserted claims in future cases.

At oral argument, Defendant stated that the issue with this claim term is whether Plaintiff's proposed construction should contain the word "device." *Id.* at 69 ("Their construction leaves out device. That's the fundamental problem."). Defendant argues that the Plaintiff's construction only requires a point of intersection, while the claim language requires a "device" be the interface.

For the time being, the Court will construe "interface device to mean "a device that allows two things work together or communicate." *Id.* at 70 ("The main point for us is that it's a device that allows two things to work together."). This construction will only apply to Claim 18 and to this case for purposes of collateral estoppel. The Court finds that the claim term contains the word "device," so it is appropriate to include the word "device" in the proposed construction.

H. "Determine Whether an Action or an Operation Associated With Information Contained in the Second Signal . . . is an Authorized or an Allowed Action or an Authorized or Allowed Operation"

| Disputed Term | Plaintiff's Proposed Construction | Defendant's Proposed Construction | Court's Construction |
|---|--|---|---|
| "Determines whether an action or an operation associated with information contained in the second signal . . . is an authorized or an allowed action or an authorized or allowed operation" | Plain and ordinary meaning as understood by a person of ordinary skill in the art and further in view of the intrinsic evidence. | "Determines whether the action or operation indicated by the second signal is an action or operation that the apparatus recognizes as valid." | The disputed claim language refers to whether the vehicle's owner (or other authorized person) has authorized the action and whether the action is permitted. |

The parties request that the Court construe the claim language "determines whether an action or an operation associated with information contained in the second signal . . . is an authorized or an allowed action or an authorized or allowed operation" in Claim 21 in the '363 Patent.

Claim 21 of the '363 Patent is reproduced below with the disputed claim language underlined:

21. An apparatus, comprising:

a first processing device, wherein the first processing device at least one of generates a first signal and transmits a first signal for at least one of activating, de-activating, disabling, re-enabling, and controlling an operation of, at least one of a vehicle system, a vehicle equipment system, a vehicle component, a vehicle device, a vehicle equipment, and a vehicle appliance, of or located at a vehicle, wherein the first processing device is associated with a web site, and further wherein the first processing device is located at a location remote from the vehicle,

wherein the first processing device at least one of generates the first signal and transmits the first signal in response to a second signal, wherein the second signal is at least one of generated by a second processing device and transmitted from a second processing device, wherein the second processing device is located at a location which is remote from the first processing device and remote from the vehicle, wherein the first processing device determines whether an action or an operation associated with information contained in the second signal, to at least one of activate, de-activate, disable, re-enable, and control an operation of, the at least one of a vehicle system, a vehicle equipment system, a vehicle component, a vehicle device, a vehicle equipment, and a vehicle appliance, is an authorized or an allowed action or an authorized or an allowed operation, and further wherein the first processing device at least one of generates the first signal and transmits the first signal to a third processing device if the action or the operation is determined to be an authorized or an allowed action or an authorized or an allowed operation, wherein the third processing device is located at the vehicle,

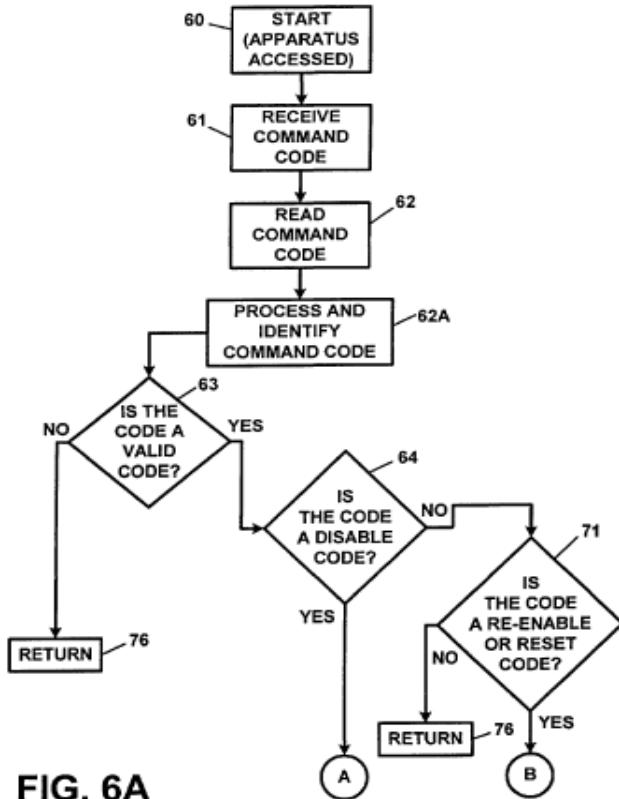
wherein the second signal is transmitted to the first processing device via, on, or over, at least one of the Internet and the World Wide Web, and further wherein the second signal is automatically received by the first processing device, wherein the first signal is transmitted to and automatically received by the third processing device, wherein the third processing device at least one of generates a third signal and transmits a third signal for at least one of activating, de-activating, disabling, re-enabling, and controlling an operation of, the at least one of a vehicle system, a vehicle equipment system, a vehicle component, a vehicle device, a

vehicle equipment, and a vehicle appliance, in response to the first signal. (Emphasis added).

When the extra language is stripped away, the disputed claim language in Claim 21 becomes clearer: “21. An apparatus . . . wherein the first processing device determines whether an action or an operation associated with the information contained in the second signal . . . is an authorized or an allowed action or an authorized or an allowed operation, and . . . transmits the first signal to a third processing device if the action or the operation is determined to be an authorized or an allowed action or an authorized or an allowed operation. . . .”

In an example embodiment of the patented invention, the stolen vehicle’s owner uses his computer to send a signal to a web site containing an instruction to turn-off the ignition system, fuel system, or other system so as to disable the vehicle. The web site then sends a signal containing the instructions to the vehicle.

An embodiment of this patented method is illustrated in Figure 6A and in the written description of the ‘363 Patent. Figure 6A is reproduced below.

**FIG. 6A**

Upon the theft of a vehicle, the written description section of the patent teaches that the patent owner may control a vehicle system, by sending a signal containing an instruction to the vehicle. The written description of the '363 Patent discloses that the signal may contain two types of codes: (1) an access code and (2) a command code. The written description states that the access code "provide[s] for security measures which may be taken in conjunction with the use of the apparatus." '363 pat. col. 4 ll. 11-13. In effect, the access code is a type of password confirming that the use of the patented apparatus is authorized by the vehicle's owner. The command code is an instruction to control a vehicle system, such as to turn-off the ignition system to disable the vehicle. *Id.* at col. 6 ll. 28-30.

According to the example embodiment of Figures 6A and 6B, starting at reference number 60, the authorized user starts the patented apparatus by entering a valid access code. *Id.* at col. 6 ll. 20-27, col. 7 ll. 12-20, and col. 38 ll. 40-43. In effect, by using a valid access code,

the system verifies that the user is authorized and that the use is not accidental such as by accidentally pressing buttons on a transmitter. Id. At step 61, the patented apparatus receives the command code from the vehicle's owner. The command code can be of a variety of codes to control a number of vehicle systems. At steps 62 and 62A, the patented apparatus will read the command code and identify the command code. "At step 63, the CPU will determine if the [command] code is a valid code . . . If the code is invalid, the CPU 4 will return to step 76 thereby exiting the operational program . . . and the apparatus 1 will await a next access code and command code transmission." Id. at col. 39 ll. 11-16.

Plaintiff argues that the disputed claim language should be given its "plain and ordinary meaning as understood by a person of ordinary skill in the art and further in view of the intrinsic evidence." Beside this general instruction, Plaintiff does not propose any specific construction for this claim term.

Defendant argues that this claim term should be construed to mean that the first processing device "determines whether the action or operation indicated by the second signal is an action or operation that the apparatus recognizes as valid."

At oral argument, the parties agreed that the only issue that needs to be decided for this claim term is whether "authorized" in this claim language means that the web site is determining whether the command code entered is an "authorized" command or whether the construction should include determining whether a particular user is "authorized."

The Court finds that the disputed claim language refers to whether the vehicle owner has "authorized" the action (e.g., through an access code) and whether the command is "allowed." Specifically, the written description teaches that safeguards may be employed in order to prevent a wrong or misdialed number from accidentally accessing and activating the patented apparatus.

Id. at col. 7 ll. 12-20. The written description also teaches that the patented apparatus serves to prevent an “unauthorized” disabling of a vehicle system through the use of security measures. Id. and col. 4 ll. 11-13. Accordingly, the Court finds that the disputed claim language refers to whether the vehicle owner or other authorized person has authorized the action and whether the action is permitted by the patented apparatus.

I. “At Least One of a Central Office Control and a Central Office Monitoring of the Vehicle”

| Disputed Term | Plaintiff’s Proposed Construction | Defendant’s Proposed Construction | Court’s Construction |
|---|--|--|--|
| “at least one of a central office control and a central office monitoring of the vehicle” | “control and/or monitoring of the vehicle from a location or office that provides centralized control and/or centralized monitoring of multiple vehicles.” | “control or monitoring of the vehicle by personnel who are located at a central office.” | “control and/or monitoring of the vehicle from a location or office that provides centralized control and/or centralized monitoring of multiple vehicles.” |

The parties request that the Court construe the claim language “at least one of a central office control and a central office monitoring of the vehicle” in Claim 28 of the ‘076 Patent.

Claim 28 of the ‘076 Patent is reproduced below with the disputed claim language underlined:

28. The apparatus of claim 27, wherein the first control device is at least one of a server computer, a computer, a network computer, and a central processing computer, and further wherein the first control device provides at least one of a central office control of and a central office monitoring of the vehicle on or over at least one of the Internet and the World Wide Web. (Emphasis added).

Plaintiff argues that this claim term should be construed to mean “control and/or monitoring of the vehicle from a location or office that provides centralized control and/or centralized monitoring of multiple vehicles.”

Defendant argues that this claim term should be construed to mean “control or monitoring of the vehicle by personnel who are located at a central office.”

At oral argument and in their briefs, the parties agreed that the issue for the Court is whether this claim limitation requires actual human personnel at the central security office control or monitor the vehicles. Defendant did say at oral argument that the human personnel could be remote from the physical structure of the central security office. According to Defendant, “The issue is whether you have some, how do you say, some human intelligence that’s helping to process the activity that happens. . . The issue is whether there’s some interaction, some human, non-automatic interaction associated with it.” Markman Hr’g Tr. at 77.

The Court will not construe the disputed claim language to require actual human personnel be controlling or monitoring the vehicles at the central security office. The claim language does not require actual human personnel be controlling or monitoring the vehicles at the central security office. Moreover, the written description section of the patent contemplates that the central security office may be “automatic.” For example, the ‘363 Patent states:

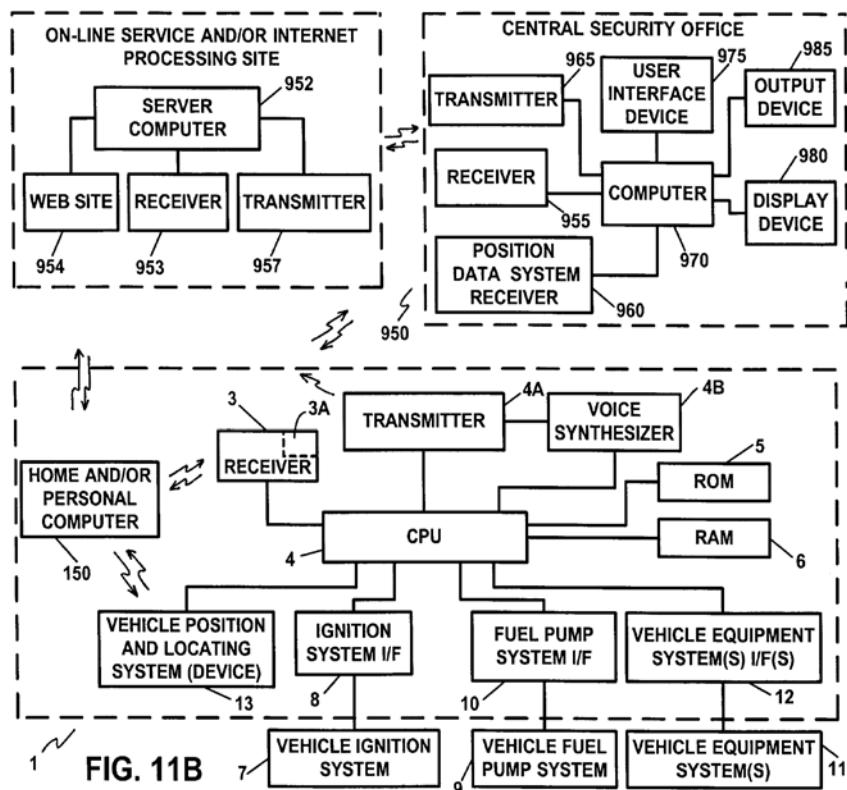
While operation of the apparatus 950 may be automatic, authorized personnel may enter commands so as to provide control over, or operate, the apparatus 950 via the user interface 975, if desired. . . . In this regard, authorized personnel at the central security office or agency could locate or track the vehicle and alert the proper authorities.

‘363 pat. col. 56 ll. 14-27 (emphasis added). The above quotation also makes clear that although a human can be involved, human control is not mandatory: “personnel may enter commands so

as to provide control over, or operate the apparatus 950 . . . , if desired.” (Emphasis added).

Accordingly, the Court adopts Plaintiff’s proposed construction.

The main evidence that Defendant submitted in support of its proposed construction is that the patent contains an example embodiment illustrating that personnel can control the computer system at the central security office through a user interface. For example, Defendant notes that Figure 11B shows a central security office having a user interface device 975 where personnel at the central security office could control the computer system.



Defendant also points to the above quotation from the written description section of the patent describing an example embodiment where a human is monitoring the operation.

The Federal Circuit has repeatedly instructed courts not to limit the scope of claims based on example embodiments disclosed in the written description section of the patent. Phillips v. AWH Corp., 415 F.3d 1303, 1323-1324 (Fed. Cir. 2005) (en banc). In this case, while the

written description of the patent clearly implies that human control is possible, the written description does not say that it is required. The Court does not believe that the plain and ordinary meaning of claim term “office” means that a human must do the control or monitoring of vehicles.

V. CONCLUSION

The Court hereby construes the disputed claim terms as set forth above. The Court reserves the right to modify its claim constructions as the infringement and validity issues of the asserted patents become clearer. Lava Trading, Inc., 445 F.3d at 1350.

SO ORDERED.

Date: August 26, 2015
Detroit, Michigan

s/Mark A. Goldsmith
MARK A. GOLDSMITH
United States District Judge

CERTIFICATE OF SERVICE

The undersigned certifies that the foregoing document was served upon counsel of record and any unrepresented parties via the Court's ECF System to their respective email or First Class U.S. mail addresses disclosed on the Notice of Electronic Filing on August 26, 2015.

s/Carrie Haddon
Case Manager